REMARKS

Claim 1 has been amended to specify that polyethylene oxide comprises from 60 to 85% by weight of the block copolymer of formula I and that such block copolymer is present in an amount of from 0.01 to 0.4% by weight of the composition. See, for example, the specification at page 5, lines 26 to 27 and page 6, lines 19 to 20. Additionally, claim 1 has been amended to incorporate the requirements of claim 9 as well as to specify that the composition contains from 5 to 20 percent by weight of anionic cleansing surfactant. See, for example, the specification at page 18, lines 5 to 9. Claim 9 has been cancelled without prejudice. New claim 16, depending from claim 1, specifies that the block copolymer of formula 1 is present in an amount of from 0.04 to 0.2% by weight of the composition.

Pursuant to the Office Action of December 20,2008, claims 1-11, 13 and 15 were rejected under 35 U.S.C. 103(a) as obvious over Evans (US 5,837,661) in view of Bolich (US 5,965,115). This rejection is respectfully traversed.

Pursuant to the subject invention it has been found that a particular silicone-polyethylene oxide block copolymer (i.e., a silicone-polyethylene oxide block copolymer of the formula:

$$HO(CH_2CH_2O)_m\text{-}[Si(CH_2)\text{-}O\text{-}]_n(CH_2CH_2O)_mH$$

wherein m is 30 or more, n is 5, the ratio n/m is from 0.1 to 1.2, and polyethylene oxide comprises from 60 to 85% by weight of such block copolymer) when incorporated into a

shampoo composition containing silicone conditioning oil and relatively high levels of cleansing surfactant (i.e., 10 to 50% by weight of the composition) can significantly enhance conditioning oil deposition at hair tips, notwithstanding the relatively high levels of cleansing surfactant present. Moreover, it has been found that such targeted enhancement of conditioning oil deposition can be achieved employing very, very low levels of the formula I silicone polyethylene oxide relative to the amount of cleansing surfactant.

. Evans (directed to a hair conditioning composition comprising 5 to 50 wt.% of cleansing surfactant) does not disclose the silicone-polyethylene oxide block copolymer required by the subject invention.

Bolich is directed to **styling compositions** (e.g., mousses, gels, hair dressings, hair sprays and hair lotions) that include a polyorganosiloxane emulsion, a silicone polyoxyalkylene copolymer surfactant, and a carrier. The silicone polyoxyalkylene copolymer surfactant disclosed by Bolich is represented by the formula:

$M'D_bD'_cM'$ (I)

in which:

b is an integer of from about 10 to about 1000 and c is an integer of from 0 to about 100, provided that when c is 0 at least on M' contains an oxyalkylene moiety;
M' is a monofunctional unit $R_2R'SiO_{1/2}$;

D is a difunctional unit $R_2SiO_{2/2}$;

D' is a difunctional unit $RR'SiO_{2/2}$;

R' is independently an oxyalkylene containing moiety, H or CH_3, wherein when R' is an oxyalkylene containing moiety, it has the formula: -R"$(OC_nCH_{2n})_n$-R"', wherein R" is a divalent radical forconnecting the oxyalkylene portion of moiety R' and R"' is a terminating moiety for the oxyalkylene portion of the moiety R'; and

R is independently H, C_3-C_6 alkyl or aryl; and

wherein the total number of all the oxyalkylene moieties in the copolymer is greater than 10.

The **polyoxyalkylene moiety** of Bolich's silicone–polyoxyalkylene surfactants is described at column 11, lines 8 to 17 of the citation:

> The oxyalkylene moiety of R' may be a random **copolymer**, a block **copolymer** or a mixture thereof. Preferred R' groups in structure (I) are those wherein the oxyalkylene units are selected from ethylene oxide units (EO), propylene oxide units (PO), and mixtures thereof. More preferred are those wherein the oxyalkylene units have an ethylene oxide unit (EO) to propylene oxide unit (PO) ratio of $EO_{10\text{-}100}PO_{0\text{-}100}$, more preferably $EO_{20\text{-}70}PO_{20\text{-}70}$, most preferably $EO_{30\text{-}70}PO_{30\text{-}70}$, based on the total oxyalkylene in the silicone polyether. (Emphasis added.)

Examples of the silicone-polyoxyalkylene surfactants are given in the Table at column 11, wherein a variety of surfactants having **both EO and PO units** and, where reported, **silicone** contents ranging from 50 to 75%, are disclosed.

It is respectfully submitted that silicone-polyethylene oxides having the silicone/polyethylene oxide ratio and polyethylene oxide content required by the subject claims are not reasonably disclosed by Bolich. Moroever, there is nothing in Bolich that

could be reasonably construed as disclosing hair conditioning compositions that include a high level of cleansing surfactant as required by the subject invention.

As noted in the Background section of the subject application, natural oils secreted by the sebaceous gland lead to hair being more hydrophobic near the root rather than tip. In commenting on attempts to target the deposition of conditioning oil droplets from a hair cleansing composition more selectively to the tip region of the hair, the application notes:

> Although it would be desirable to make the surface of the oil droplets more hydrophilic, it has long been considered that the high levels of surfactant in shampoo compositions would direct the surface chemistry and hydrophilicity of the oil droplets. Thus, the conventional view is that irrespective of any additives added to the conditioning oil droplets, **the shampoo surfactant would control the droplet hydrophilicity and deposition**. (Emphasis added; see page 3, lines 1 to 23.

It is respectfully submitted that one skilled in the art looking to selectively target silicone conditioning oil deposition from a shampoo would not be taught to incorporate low levels of the subject silicone-polyalkylene oxides surfactants from the disclosure of Bolich. Indeed, on the basis of conventional wisdom, there would be no reason to expect that such additives, at the instantly claimed levels, would effect droplet hydrophilicity and deposition in a system with the subject levels of cleansing surfactant. Moreover, **even if combined**, there would be no reason to select the subject silicone polyoxyethylene copolymers for use in such compositions, as the clear teaching in Bolich is toward the use of silicone poly(oxyethylene/oxypropylene copolymers) having relatively high levels of silicone to stabilize styling compositions in which a organosilicone microemulsion and, preferably, a lower monohydric alcohol is present (the lower monohydric alcohol, a common ingredient in styling products, being therein

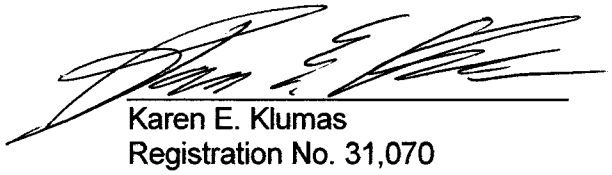
disclosed as contributing to stability issues by giving rise to phase separation, particularly when present at higher levels).

Accordingly, it is respectfully submitted that the invention described by the subject claims as hereby amended is not disclosed or rendered obvious over the combination of Evans and Bolich.

In view of the foregoing amendments and remarks, reconsideration and allowance of the subject claims is respectfully requested.

If a telephone conversation would be of assistance in advancing the prosecution of the present application, applicants' undersigned attorney invites the Examiner to telephone at the number provided.

Respectfully submitted,



Karen E. Klumas
Registration No. 31,070
Attorney for Applicant(s)

KEK/sa
(201) 894-2332